

ARMY LOGISTICS
Delivering Materiel Readiness to the Army



Modernizing the Army's Tactical Wheeled Vehicle Fleet

TWV Strategy

***Striking a balance between new
procurement and cyclic refurbishment***

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Today's tactical wheeled vehicles (TWV) will be supporting the future combat systems-equipped brigade combat teams. That is not just an assumption; that is a fact. To ensure the Army can support the future force, we must address three critical shortfalls with today's fleet. First, today's TWV fleet is aging beyond its useful life. Second, the size of the fleet is being reduced due to combat losses, and yet, the requirements for TWV have increased as a result of the Army's modular transformation. Last, the capabilities of the current fleet will not allow effective support to an expeditionary Army.

Aging TWV Fleet

Today's TWV fleet age averages about 30 years, while the average Army truck driver today is 20 years old. Over 50 percent of the Army's existing TWV fleet is approaching, or has exceeded, its economical useful life (EUL). The TWV fleet will continue to deteriorate as it ages, and that will drive operational and sustainment costs ever-higher. Additionally, the aging of the TWV fleet is being accelerated by its increased use. Since the commencement of hostilities in Iraq, TWV usage rates have grown eight-fold. Today, an average of 2,000 trucks haul supplies daily over a very hazardous 876-mile supply route from Kuwait to Iraq. Battle losses and



damage caused by operations are reducing the available inventory and will continue to do so for several more years. This accelerated aging of the fleet demands that Army logisticians move rapidly to establish a life-cycle program of refurbishment and procurement to meet requirements.

Increased Requirements

Tomorrow's Army needs more TWVs than today's. As the Army modularizes, it will establish a distribution-based sustainment structure that will increase reliance on TWVs to deliver sustainment to the forward edge of the battlefield. As the Army transitions to a modular force, it anticipates a requirement for 55,000 trucks. These increased Army-wide requirements are compounded by the battle losses currently experienced in the Global War on Terrorism. **The bottom line — there are not enough TWVs to support the modular Army.**

Outdated Capability

Today's TWV fleet does not have the capability to effectively support the modern battlefield. Today, and in the future, ground forces will operate on a noncontiguous, nonlinear, rapidly reorganizing battlefield. Secure lines of communications will be the exception to the rule. Today's reliance on ground distribution, coupled with the characteristics above, places Army logisticians at high risk.

Commanders cannot effectively control distribution because they cannot communicate with their operators. As a result, only minimum in-transit visibility is available. This means the distribution system is not as flexible and responsive as it should be. Additionally, drivers cannot communicate with each other, their

home operating base, or their destination, and they have very little battlefield awareness while on a mission. Because neither the driver nor the commanders can see changes in the operating environment, they are not able to react to changing logistical requirements. This lack of situational awareness compounds an already risky operating environment faced by Soldiers driving soft-skinned vehicles.

- **Today's TWV does not offer enough crew protection to our operators.**
- **Today's TWV is too hard to maintain.**
- **Today's TWV consumes too many resources, e.g., fuel.**

Road Ahead

Without a consistent, cyclic modernization program for the TWV fleet or approved long-term investment program for new TWV procurement, units risk losing capability and jeopardizing mission success. The Army requires a comprehensive fleet-wide TWV strategy that allows the Army to modernize its current fleet while trans-

forming to a future truck system. As the research and development community continues its long-term work on a future truck system, it expects to develop several key near-term and midterm technologies that



can be inserted into today's TWV, and will greatly improve theater distribution capability in the near term.

The Army G-4 has collaborated with the force development community to develop a TWV strategy that will ensure viability of the entire fleet through 2030. This strategy strikes a balance between new procurement and cyclic refurbishment and also leverages the spiral insertion of new technology as vehicles go through the refurbishment process. This life-cycle modernization

process will significantly improve the effectiveness of the existing fleet. Spiral technology investments will focus on improving vehicle and crew



connectivity, improving crew/operator protection, enhancing maintainability of the current fleet, and reducing operating costs by increasing fuel efficiency. It is the Army's intent to use the TWV reset program to kick-start the long-term investment strategy for fleet modernization. Where possible, commercial off-the-shelf vehicles will replace those tactical vehicles used for home station and installation operations.

Spiral Technology Investments Will:

- **Improve vehicle and crew connectivity**
- **Improve crew/operator protection**
- **Enhance maintainability of the current fleet**
- **Reduce operating costs by increasing fuel efficiency**

Transformation requires the integrated efforts of industry, academia and the government. The most effective way to leverage current and future research and development is through advanced



concept technology demonstration efforts. The Army will look at ways to insert new technologies into the current fleet using a truck rodeo forum that will provide open competition among vendors. Concurrently, the Army will use a process of modeling and simulation to begin the development of several proto-

type future truck systems for demonstration. Competitive comparison of prototype vehicles against enhanced current fleet vehicles will drive cost-effective production decisions for the Army's future.



“ The TWVs we invest in today will be driven by your grandchildren. We must ensure they are as capable tomorrow as they are today.”

**LTG Claude V. (Chris) Christianson, Army G-4
Deputy Chief of Staff for Logistics**

Bottom Line

The Army is embracing change at a pace unlike any other in history. Army logisticians must remain linked to developing operational concepts and emerging combat systems capabilities. A distribution-based sustainment system that is effective for today's joint and expeditionary Army is within reach, and is vital to the success of the Army's joint and expeditionary mission. A modern, capable TWV fleet is critical to our ability to support the transformed Army. This modernization program is the key to ensuring that today's fleet will support tomorrow's Army.

